

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE



Applicant : Frank R. Miele, et al.

App. No. : 09/815,982

Filed : March 22, 2001

For : **METHOD AND APPARATUS FOR  
THE NONINVASIVE ASSESSMENT  
OF HEMODYNAMIC PARAMETERS  
INCLUDING BLOOD VESSEL  
LOCATION**

Examiner : Unknown

Group Art Unit: 3736



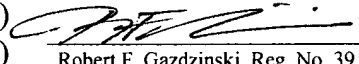
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PATENT, TRADEMARK OFFICE

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for Patents, Washington, D.C. 20231, on

January 17, 2002

(Date)

  
Robert F. Gazdzinski, Reg. No. 39,990TRANSMITTAL LETTER

Assistant Commissioner for Patents  
Washington, D.C. 20231

Dear Sir:

Enclosed for filing in the above-identified application are:

1. Information Disclosure Statement (3 pages) and a copy of the referenced International Search Report;
2. Form PTO-1449 (4 pages) including ninety-one (91) references; and,
3. Return prepaid postcard.

Respectfully submitted,

GAZDZINSKI &amp; ASSOCIATES

Dated: January 17, 2002By: 

Robert F. Gazdzinski, Esq.  
Registration No. 39,990  
Attorney of Record  
3914 Murphy Canyon Road, Suite A232  
San Diego, CA 92123  
(858) 505-1166

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VWAVE.001CP2



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**INFORMATION DISCLOSURE STATEMENT**

Assistant Commissioner for Patents  
Washington, D.C. 20231

Dear Sir:

Enclosed is a copy of form PTO-1449 listing ninety-one (91) references. A portion of the enclosed references were previously submitted in prior application, Serial No. 09/342,549, filed June 29, 1999 entitled "Method and Apparatus for the Noninvasive Determination of Arterial Blood Pressure" (VWAVE.001A) from which the above-referenced pending application claims priority. Thus, pursuant to 37 C.F.R. § 1.98(d) copies of the listed references are not required; however, applicant has enclosed copies of the references herewith for the Examiner's convenience.

**App. No.** : 09/815,982  
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Additionally, pursuant to 37 C.F.R. 1.98, the enclosed form PTO-1449 lists four issued patents which are assigned to the assignee hereof and potentially related to subject matter of the subject named application.

Pursuant to § 609A(3) of the Manual of Patent Examining Procedure, a copy of the International Search Report is attached for your reference. Applicant respectfully submits that such International Search Report satisfies the requirement for a concise explanation relating to EPO 0 299 827 A1 and DE 42 18 319 A1, which are not provided in the English Language.

Also, the enclosed form PTO-1449 lists Patent No. EP 0 595 666 B1. The subject patent is written in French; Applicant accordingly submits herewith what is believed to be the English language (U.S. Patent) equivalent, namely U.S. Patent No. 5,479,928, pursuant to § 609A(3) of the Manual of Patent Examining Procedure.

With regard to Patent No. 0 284 095 B1, a German patent listed on the enclosed PTO-1449 form, please refer to the Summary of Content and Concise Explanation of Reference and Translation of Figures attached directly to the patent, which are submitted for the Examiner's review pursuant to § 609A(3) of the Manual of Patent Examining Procedure.

This Information Disclosure Statement is being filed before the mailing date of a first Office Action on the merits, and presumably no fee is required in accordance with 37 C.F.R. § 1.97(b)(3). If a first Office Action on the merits was mailed before the mailing date of this Statement, it is requested that the undersigned be contacted for payment of the fee as set forth in 37 C.F.R. § 1.17(p).

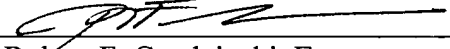
**App. No.** : 09/815,982  
**Filed** : March 22, 2001

Pursuant to 37 C.F.R. § 1.97(g) and (h), Applicant makes no representation that a search has been made or that the information cited is considered to be material to patentability. Additionally, inclusion on this list is not an admission that any of the cited documents are prior art in this application. Further, Applicant makes no representation regarding the completeness of this list or that better art does not exist.

Respectfully submitted,

GAZDZINSKI & ASSOCIATES

Dated: January 17, 2002

By:   
Robert F. Gazdzinski, Esq.  
Registration No. 39,990  
Attorney of Record  
3914 Murphy Canyon Road, Suite A232  
San Diego, CA 92123  
(858) 505-1166

FORM PTO-1449

U.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICE

ATTY. DOCKET NO.

VWAVE.001CP2

APPLICATION NO.

09/815,982

INFORMATION DISCLOSURE STATEMENT  
BY APPLICANT

(USE SEVERAL SHEETS IF NECESSARY)

APPLICANT

Frank R. Miele, et al.

FILING DATE

March 22, 2001

GROUP

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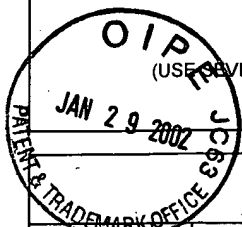
## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE (IF APPROPRIATE)
	1	3,527,197	09/08/70	Ware, et al.			
	2	3,601,120	08/24/71	Massie, et al.			
	3	3,617,993	11/02/71	Massie, et al.			
	4	3,663,932	05/16/72	Mount, et al.			
	5	3,791,378	02/12/74	Hochbert, et al.			
	6	3,885,551	05/27/75	Massie			
	7	4,109,647	08/29/78	Stern, et al.			
	8	4,127,114	11/28/78	Bretscher			
	9	4,154,231	05/15/79	Russell			
	10	4,239,047	12/16/80	Griggs, III, et al.			
	11	4,249,540	02/10/81	Koyama, et al.			
	12	4,349,034	09/14/82	Ramsey, III			
	13	4,476,875	10/16/84	Nilsson, et al.			
	14	4,566,462	01/28/86	Janssen			
	15	4,590,948	05/27/86	Nilsson			
	16	4,596,254	06/24/86	Adrian, et al.			
	17	4,651,747	03/24/87	Link			
	18	4,660,564	04/28/87	Benthin, et al.			
	19	4,719,923	01/19/88	Hartwell, et al.			
	20	4,754,761	07/05/88	Ramsey, III, et al.			
	21	4,771,792	09/20/88	Seale			
	22	4,867,170	09/19/89	Takahashi			
	23	4,869,261	09/26/89	Penaz			
	24	4,901,733	02/20/90	Kaida, et al.			
	25	4,924,871	05/15/90	Honeyager			
	26	4,960,128	10/02/90	Gordon, et al.			
	27	5,030,956	07/09/91	Murphy			
	28	5,072,733	12/17/91	Spector, et al.			
	29	5,094,244	03/10/92	Callahan, et al.			

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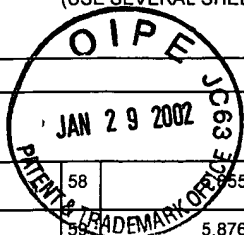
FORM PTO-1449	U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	ATTY. DOCKET NO. VWAVE.001CP2	APPLICATION NO. 09/815,982
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (USE SEVERAL SHEETS IF NECESSARY)		APPLICANT Frank R. Miele, et al.	
		FILING DATE March 22, 2001	GROUP 3736

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE (IF APPROPRIATE)
	30	5,119,822	06/09/92	Niwa		
	31	5,158,091	10/27/92	Butterfield, et al.		
	32	5,163,438	11/17/92	Gordon, et al.		
	33	5,170,796	12/15/92	Kobayashi		
	34	5,238,000	08/24/93	Niwa		
	35	5,240,007	08/31/93	Pytel, et al.		
	36	5,261,412	11/16/93	Butterfield, et al.		
	37	5,273,046	12/28/93	Butterfield, et al.		
	38	5,327,893	07/12/94	Michael Savic		
	39	5,368,039	11/29/94	Moses		
	40	5,409,010	04/25/95	Kirk Beach, et al.		
	41	5,439,001	08/08/95	Butterfield, et al.		
	42	5,450,852	09/19/95	Archibald, et al.		
	43	5,467,771	11/21/95	Narimatsu, et al.		
	44	5,479,928	01/02/96	Cathignol, et al.		
	45	5,494,043	02/27/96	O'Sullivan, et al.		
	46	5,495,852	03/05/96	Stadler, et al.		
	47	5,551,434	09/03/96	Kazuhiro Iinuma		
	48	5,590,649	01/07/97	Caro, et al.		
	49	5,617,867	04/08/97	Butterfield, et al.		
	50	5,634,467	06/03/97	Nevo		
	51	5,642,733	07/01/97	Archibald, et al.		
	52	5,649,542	07/22/97	Archibald, et al.		
	53	5,749,364	05/12/98	Sliwa, et al.		
	54	5,785,654	07/28/98	Iinuma, et al.		
	55	5,832,924	11/10/98	Archibald, et al.		
	56	5,833,618	11/10/98	Caro, et al.		
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58	5,555,557	01/05/99	John C. Lazenby			
59	5,876,346	03/02/99	Corso			
60	5,895,359	04/20/99	Peel, III			
61	5,904,654	05/18/99	Wohltmann, et al.			
62	5,908,027	06/01/99	Butterfield, et al.			
63	5,916,180	06/29/99	Cundari, et al.			
64	5,964,711	10/12/99	Voss, et al.			
65	6,027,452	02/22/00	Flaherty, et al.			
66	6,176,831	01/23/01	Voss, et al.			
67	6,228,034 B1	05/08/01	Voss, et al.			
68	6,258,031 B1	07/10/01	Sunagawa, et al.			
69	6,267,728	07/31/01	Steven Mark Hayden			

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## FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
							YES	NO
	70	EP 284 095 B1 Including Summary of Content and Concise Explanation of Reference and Exhibit 1 - Translation of Figures	March 1988	Europe				
	71	0 342 249 A1	May 1988	Europe				
	72	EP 0299 827 A1	June 1988	Europe				
	73	EP 0595 666 B1	Sept. 1993	Europe				
	74	0 603 666 A2	Dec. 1993	Europe				
	75	EP 0818 176 A1	July 1996	Europe				
	76	DE 4218319 A1	June 1992	Germany				
	77	WO 84 00290	Feb. 1984	PCT				
	78	WO 92 07508	May 1992	PCT				
	79	WO 95/00074	Jan. 1995	PCT				
	80	WO 95 13014	May 1995	PCT				
	81	WO 98 25511 A	June 1998	PCT				

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EXAMINER INITIAL	OTHER DOCUMENTS (INCLUDING AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.)
82	Drzewiecki, G. (1995) "Noninvasive Assessment of Arterial Blood Pressure and Mechanics," The Biomedical Engineering Handbook CRC Press, Boca Raton, FL, pp. 1196-1211.
83	Boashash, B., et al. (1987) "An Efficient Real-Time Implementation of the Wigner-Ville Distribution," IEEE Trans ASSP 35:1611-1618.
84	Drzewiecki, G.M., et al. (1985) Generalization of the Transmural Pressure-Area Relation for the Femoral Artery," 7 <sup>th</sup> Annual IEEE EMBS Conference 507.
85	Hoeks, A.P.G., et al. (1985) Transcutaneous Detection of Relative Changes in Artery Diameter," Ultrasound in Med and Bio 11:51-59.
86	Carson, E.R., et al. (1983) "The Mathematical Modeling of Metabolic and Endocrine Systems: Model Formulation, Identification, and Validation," John Wiley & Sons, NY, pp. 185-189.
87	Anderson, E.A., et al. (1989) "Flow-Mediated and Reflex Changes in Large Peripheral Artery Tone in Humans," Circulation 79:93-100.
88	Hartley, C.J., et al. (1991) "An Ultrasonic Method for Measuring Tissue Displacement: Technical Details and Validation for Measuring Myocardial Thickening," IEEE Trans Biomed, 38:735-747.
89	Cariou, Alain, et al. (1998) "Noninvasive Cardiac Output Monitoring by Aortic Blood Flow Determination: Evaluation of the Sometec Cynemo-3000 System," Critical Care Medicine, Vol. 26, No. 12, pp. 2066-2072
90	Advertisement for HemoSonic™ 100 by Arrow International – licensed under U.S. Patent 5,479,928 listed above
91	Application Serial No. 09/815,080 entitled "Method and Apparatus For Assessing Hemodynamic Parameters within the Circulatory System of a Living Subject," filed March 22, 2001 – Attorney Docket No. VWAVE.003P1

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EXAMINER	DATE CONSIDERED
*EXAMINER: INITIAL IF CITATION CONSIDERED, WHETHER OR NOT CITATION IS IN CONFORMANCE WITH MPEP 609; DRAW LINE THROUGH CITATION IF NOT IN CONFORMANCE AND NOT CONSIDERED, INCLUDE COPY OF THIS FORM WITH NEXT COMMUNICATION TO APPLICANT.	